



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0876; Directorate Identifier 2013-NE-27-AD]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce plc Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines. This proposed AD was prompted by an uncontained multiple turbine blade failure on an RR RB211 Trent 772B turbofan engine. This proposed AD would require modification of the engine by removing an electronic engine control (EEC) incorporating EEC software standard A14 or earlier and installing an EEC eligible for installation. We are proposing this AD to prevent failure of the intermediate pressure (IP) turbine disk drive arm or burst of the high pressure turbine disk, which could lead to uncontained engine failure and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; or Web site: <https://www.aeromanager.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2013-0876; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Anthony W. Cerra Jr., Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7128; fax: 781-238-7199; email: anthony.cerra@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0876; Directorate Identifier 2013-NE-27-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2013-0190, dated August 20, 2013 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

An operator of an A330 aeroplane fitted with RR Trent 772B engines experienced an engine uncontained multiple turbine blade failure. Investigation results showed that High Pressure/Intermediate Pressure (HP/IP) oil vent tubes may be affected by carbon deposit and may also be damaged by their outer heat shields, which in this case led to combustion inside the tube. The consequent chain of events resulted in an engine internal fire which caused the failure of the IP Turbine (IPT) disc drive arm.

This condition, if not corrected, could lead to uncontained multiple turbine blade failures or an HP/IP turbine disc burst, possibly resulting in damage to, and reduced control of, the aeroplane.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2013-0876.

FAA’s Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of the United Kingdom and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require modification of the engine by removing an EEC

incorporating EEC software standard A14 or earlier and installing an EEC eligible for installation.

Costs of Compliance

We estimate that this proposed AD would affect about 72 engines installed on airplanes of U.S. registry. We also estimate that it would take about 1 hour per product to comply with this proposed AD. The average labor rate is \$85 per hour. There are no required parts. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$6,120.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Amend § 39.13 by adding the following new airworthiness directive (AD):

Rolls-Royce plc: Docket No. FAA-2013-0876; Directorate Identifier 2013-NE-27-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines prior to engine serial number 42066.

(d) Reason

This AD was prompted by an uncontained multiple turbine blade failure on an RR RB211 Trent 772B turbofan engine. We are issuing this AD to prevent failure of the intermediate pressure turbine disc drive arm or burst of the high pressure turbine disk, which could lead to uncontained engine failure and damage to the airplane.

(e) Actions and Compliance

After the effective date of this AD, at the next engine shop visit or by December 31, 2018, whichever occurs first, modify the engine by removing any electronic engine control (EEC) that incorporates EEC software standard A14 or earlier and installing an EEC eligible for installation.

(f) Installation Prohibition

After modification of an engine as required by paragraph (e) of this AD, do not install an EEC with software standard A14 or earlier into that engine.

(g) Definition

(1) For the purposes of this AD, an “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

(2) For the purposes of this AD, an EEC “eligible for installation” in paragraph (e) of this AD is any EEC that does not contain software standard A14 or earlier.

(h) Credit for Previous Actions

If before the effective date of this AD you removed from an engine any EEC that had EEC software standard A14 or earlier and your engine no longer has an EEC with software standard A14 or earlier, you have met the requirements of this AD.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact Anthony W. Cerra, Jr., Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7128; fax: 781-238-7199; email: anthony.cerra@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2013-0190, dated August 20, 2013, for more information. You may examine the MCAI in the AD docket

on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2013-0876.

(3) RR Alert Service Bulletin No. RB.211-73-AG829, dated April 18, 2012, which is not incorporated by reference in this AD, can be obtained from Rolls-Royce plc using the contact information in paragraph (j)(4) of this AD.

(4) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-249936; email: http://www.rolls-royce.com/contact/civil_team.jsp; or Web site: <https://www.aeromanager.com>.

(5) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on February 20, 2014.

Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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